PORTABLE COMPUTER HAVING KEYBOARD AND COORDINATE INPUT TABLET HINGEDLY CONNECTED TO A MAIN BODY CASE THROUGH A GROOVE

This application is a continuation, of application Ser. No. 08/255,885, filed Jun. 7, 1994, now abandoned, which is a continuation of application Ser. No. 08/016,304, filed Feb. 11, 1993, (abandoned) which is a divisional application of Ser. No. 07/692,250 filed Apr. 26, 1991 now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a portable computer which comprises a keyboard and a coordinate input tablet as data input means.

2. Description of the Related Art

In general, in a so-called lap-top type personal computer or wordprocessor which aims at a compact structure, as shown in FIG. **1**, a low-profile flat display unit **3** comprising, e.g., a liquid crystal display (LCD) **1** is coupled to be able to be folded to oppose a keyboard **7** of a main body case unit **5**, and to be opened to stand up. With this structure, when a user carries the computer, he or she folds the display unit to make it look like an attaché case, and when he uses it, he opens the display unit to watch the screen.

In a conventional portable computer of this type, a keyboard is mainly used for inputting data, such as commands, characters, and the like by a user. For this reason, in order to use the computer, a user must be able to operate the keyboard. However, the user must be accustomed with the keyboard to some extent before he or she can efficiently input data. For this reason, a demand has arisen for an input means which is easier to operate for a user who is not accustomed with the operation of the keyboard.

Under the circumstances, a tablet which can input data using a pen like in handwriting has been developed. FIGS. **2** through **4** show arrangements of portable computers each of which comprises both a tablet and a keyboard.

In the portable computer shown in FIG. **2**, a display unit **3** is stored in an upper cover **9**, and a keyboard **7** is stored in a main body case **5**. The upper cover **9** is coupled to the main body case **5** by hinge portion **11**. A tablet **13** is separated from the main body, and is connected to the main body case **5** via a cord **15**.

In the portable computer shown in FIG. **3**, the tablet **13** is rendered compact, and is assembled in the main body case **5** to be adjacent to the keyboard **7**.

In recent years, an integrated display/input device **17** which is integrated by overlaying the transparent tablet **13** on the display unit **3** has been developed as an input means, as shown in FIG. **4**. In the integrated display/input device **17**, a content displayed on the display unit **3** can be visually observed through the tablet **13**, and coordinate data corresponding to a display screen is input by writing on the tablet **13** using a pen in accordance with the displayed content. The coordinate data input from the tablet **13** designates an icon displayed on the display unit **3**, and is used as a character pattern. Since the integrated display/input device **17** allows a user to input data as if he or she wrote on paper with a pencil, anyone can easily operate the device **17**.

In the portable computer shown in FIG. **4**, the integrated display/input device **17** is assembled in the main body case **5**, and the keyboard **7** is connected to the integrated display/input device **17** via the cord **15**.

However, the portable computer shown in FIG. **2** cannot be rendered compact, and is inconvenient for carrying since the tablet **13** is separated from the main body. Since a data input position is different from a display position, integrated input/display feeling cannot be obtained.

In the portable computer shown in FIG. **3**, when the overall computer is rendered compact, the sizes of the tablet **13** and the keyboard **7** become very small. Therefore, the computer shown in FIG. **3** is not easy to use, resulting in poor operability.

Furthermore, the portable computer shown in FIG. **4** cannot be rendered compact since the display unit **3** and the transparent tablet **13** are assembled in the main body case **5**, and the keyboard **7** is separated. Therefore, a wide installation area is required in a data input state, and the computer shown in FIG. **4** is inconvenient for carrying. Furthermore, since the display surface (the tablet **13** and the display unit **3**) of the integrated display/input device **17** are exposed, the computer must be carefully carried.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a portable computer which comprises a keyboard and a tablet, which can be rendered compact, and can provide improved input operation performance.

According to the first aspect of the present invention, a portable computer comprises: keyboard means for inputting data; main body case means for storing the keyboard means; an integrated display/input device which is constituted by a display device for displaying data, and a tablet for inputting coordinate data, and is integrated by overlaying the tablet on a display surface of the display device; cover means for storing the integrated display/input device; and hinge means for pivotally coupling the main body case means and the cover means from a state wherein the main body case means and the cover means overlap each other so that the keyboard means and the integrated display/input device face each other to a state wherein the main body case means and the cover means overlap each other so that back surfaces thereof face each other.

According to the second aspect of the present invention, a portable computer comprises: a main body unit for storing a keyboard; display/input means integrated by overlaying a coordinate input tablet on a display device; a support unit for supporting the display/input means; a first hinge mechanism unit for coupling the support unit to the main body unit; and a second hinge mechanism unit for rotatably coupling the display/input means to the support means as an outer frame.

According to the third aspect of the present invention, a portable computer comprises: a main body case for storing a keyboard; an upper cover; a first hinge mechanism for coupling the upper cover to the main body case; input/display means integrated by overlaying a coordinate input tablet on a display device; a second hinge mechanism for rotatably coupling the input/display means to the upper cover as an outer frame; and a rotational range regulating mechanism for regulating a rotational range of the input/display means by the second hinge mechanism.

According to the fourth aspect of the present invention, a portable computer comprises: a main body case for storing a keyboard; integrated display/input means integrated by overlaying a coordinate input tablet on a display device; an upper cover for storing the integrated display/input means; a junction upper cover; a first hinge mechanism for rotatably coupling the junction upper cover to the main body case; and